

MONTHLY WEATHER REVIEW.

Editor: Prof. CLEVELAND ABBE.

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INTRODUCTION.

The REVIEW for April, 1896, is based on 2,726 reports from stations occupied by regular and voluntary observers, classified as follows: 149 from Weather Bureau stations; 33 from U. S. Army post surgeons; 2,404 from voluntary observers; 32 from Canadian stations; 1 from Hawaii; 96 received through the Southern Pacific Railway Company; 11 from U. S. Life-Saving stations. International simultaneous observations are received from a few stations and used together with trustworthy newspaper extracts and special reports.

The WEATHER REVIEW is prepared under the general editorial supervision of Prof. Cleveland Abbe. Unless otherwise specifically noted, the text is written by the Editor, but the statistical tables are furnished by Mr. A. J. Henry, Chief of the Division of Records and Meteorological Data. Special acknowledgment is made of the hearty cooperation of Prof. R. F. Stupart, Director of the Meteorological Service of the Dominion of Canada, Mr. Curtis J. Lyons, Meteorologist to the Government Survey, Honolulu, and of Dr. Mariano Bárcena, Director of the Central Meteorological Observatory of Mexico.

CLIMATOLOGY OF THE MONTH.

GENERAL CHARACTERISTICS.

East of the Rocky Mountain Plateau regions the mean temperatures during April were generally above the normal; very many stations report the highest maximum temperatures on record.

A region of heavy rainfall covered the upper Mississippi and lower Missouri valleys. The rainfall was below the normal in the Atlantic and Gulf States and in the Ohio Valley.

ATMOSPHERIC PRESSURE.

[In inches and hundredths.]

The distribution of mean atmospheric pressure reduced to sea level, as shown by mercurial barometers, not reduced to standard gravity, and as determined from observations taken daily at 8 a. m. and 8 p. m. (seventy-fifth meridian time), is shown by isobars on Chart IV. That portion of the reduction to standard gravity that depends on latitude is shown by the numbers printed on the right-hand border.

The mean pressures during the current month were high in the Middle and South Atlantic States, Florida, and the Ohio Valley. The highest were: Charleston, 30.22; Savannah, 30.21; Jacksonville, 30.20; Mobile, 30.19.

The mean pressures were low in the Missouri Valley, the northern and middle slopes, the southern Plateau, and British Columbia. The lowest were: Dodge City, 29.83; Spences Bridge, 29.84; Calgary and Pueblo, 29.85; Concordia, 29.86; Medicine Hat, 29.87; Omaha and Wichita, 29.88.

As compared with the normal for April, the mean pressure was in excess over New England, the Middle and South Atlantic States, the Lake Region, and Quebec and Ontario, but generally deficient west of the Mississippi River. The greatest excesses were: Boston, Wilmington, and Charleston, 0.19; Father Point, Eastport, Block Island, New Haven, Kittyhawk, Hatteras, and Savannah, 0.18; Washington, 0.17. The greatest deficits were: Concordia, 0.17; Rapid City, 0.12; Pueblo, 0.11; Pierre, 0.10.

As compared with the preceding month of March the pressures

reduced to sea level show a decided rise over New England, the Middle and South Atlantic States and Lake Region and a decided fall west of the Mississippi River. The greatest rises were: Chatham, 0.25; Father Point and Eastport, 0.24; Charlottetown and Yarmouth, 0.23; Portland, Me., 0.22. The greatest falls were: Concordia, 0.24; North Platte and Dodge City, 0.23; Pierre, 0.22; Huron, 0.21; Omaha and Pueblo, 0.20.

AREAS OF HIGH AND LOW PRESSURE.

By Prof. H. A. HAZEN.

During the month of April nine low areas have been traced on Chart I, and six high areas on Chart II. These charts show also the position of each low and high at each 12-hour period of its existence and the barometer reading at these points. During the last few days of the month an area of rather permanent high pressure remained nearly stationary off the south Atlantic Coast, but not sufficiently near our stations of observation to be charted. A remarkable feature of the lows this month has been their formation on the Pacific Coast in the extreme northwest and their general disappearance before reaching the Atlantic Coast. There has also been a marked absence of storms passing over the Southern States.

The accompanying table exhibits some of the more important facts regarding the origin and velocity of the highs and lows, and the following brief description is added:

HIGH AREAS.

I.—First seen in Wyoming a. m. of 1st; its motion was east-southeast, and was last seen p. m. of 5th off the south Atlantic Coast.

II.—First observed in Washington State p. m. of 3d; its motion was eastward, reaching the Atlantic Coast a. m. of 9th. After that it hovered off the coast and its last definite location was off the south Atlantic Coast p. m. of 11th.

III.—First seen to the north of Montana a. m. of 15th; its motion was to the north of stations of observation, and it disappeared in Manitoba p. m. of 17th.